AMENDMENT UNDER 37 C.F.R. § 1.114(c)

U.S. Application No.: 10/563,877

## **AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listings of claims in the application:

## LISTING OF CLAIMS:

- (previously presented): A printing apparatus as set forth in claim 2, wherein:
  the first sensor detects regular reflection light from said medium; and
  the second sensor is provided separately from said first sensor, and detects diffuse
  reflection light from said medium.
- 2. (currently amended): A printing apparatus, comprising:

  a carry transport unit that carries transports a medium in a carrying transporting direction;

a movable head that performs recording on a medium using ink and that moves in a moving direction;

a first sensor that ean move moves in said moving direction together with said head and that detects an edge of said medium; and

a second sensor that ean move moves in said moving direction together with said head and that detects a pattern formed on said medium by said head;

wherein:

said first sensor is provided further upstream with regard to said earrying transporting direction than said second sensor,

said head has a plurality of nozzles,

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a plurality of block patterns are formed on said medium lined up in a straight line in said moving direction.

each of said plurality of block patterns is respectively formed by a different nozzle, and

said second sensor detects said plurality of block patterns that are lined up in said moving direction while said second sensor moves once in said moving direction.

said head has a plurality of colored-liquid nozzles that eject a colored liquid and a plurality of colorless-liquid nozzles that eject a colorless liquid,

each of said colorless-liquid nozzles forms a colorless block pattern,

said plurality of colored-liquid nozzles applies said colored liquid onto a plurality of said colorless block patterns, and

a degree of smearing of said colored liquid at a position at which said colorless block pattern is to be formed is detected based on the detection by said second sensor so that a colorless liquid nozzle that has not ejected said colorless liquid is detected.

- 3 4. (canceled).
- 5. (currently amended): A printing apparatus according to claim 34, wherein said light-emitting section and said light-receiving section of said first sensor are arranged in said transporting a direction in which said medium is carried; and

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said light-emitting section and said light-receiving section of said second sensor are arranged in a direction in which said head is moved said moving direction.

- 6 7. (canceled).
- 8. (original): A printing apparatus according to claim 2, wherein said first sensor includes a light-emitting section and a light-receiving section; said light-emitting section of said first sensor irradiates light onto said medium; and said light-receiving section of said first sensor receives regular reflection light from said medium.
- 9. (original): A printing apparatus according to claim 2, wherein said second sensor includes a light-emitting section and a light-receiving section; said light-emitting section of said second sensor irradiates light onto said medium; and said light-receiving section of said second sensor receives diffuse reflection light from said medium.

10-16. (canceled).

17. (previously presented): A printing apparatus according to claim 1, wherein said head can eject said ink while moving in a forward pass and in a return pass; and

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locations at which ink is to be ejected from said head are determined in accordance with the detection result of said second sensor.

- 18. (previously presented): A printing apparatus according to claim 1, wherein the type of said medium is detected from the detection result of said first sensor and the detection result of said second sensor.
- 19. (original): A printing apparatus according to claim 18, wherein said head performs the recording on said medium in accordance with the type of said medium.
  - 20 21. (canceled).
- 22. (previously presented): A printing system as set forth in claim 23, wherein: the first sensor detects regular reflection light from said medium; and the second sensor is provided separately from said first sensor, and detects diffuse reflection light from said medium.
  - 23. (currently amended): A printing system comprising:
  - a computer; and
  - a printing apparatus,
  - said printing apparatus including:

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a carry transport unit that carries transports a medium in a carrying transporting direction;

a movable head that performs recording on a medium using ink and that moves in a moving direction;

a first sensor that ean-moves in said moving direction together with said head and that detects an edge of said medium; and

a second sensor that ean-moves in said moving direction together with said head and that detects a pattern formed on said medium by said head; wherein:

said first sensor is provided further upstream with regard to said earrying transporting direction than said second sensor,

said head has a plurality of nozzles,

a plurality of block patterns are formed on said medium lined up in a straight line in said moving direction,

each of the plurality of block patterns is respectively formed by a different nozzle, and

said second sensor detects said plurality of block patterns that are lined up in said moving direction while said second sensor moves once in said moving direction.

said head has a plurality of colored-liquid nozzles that eject a colored liquid and a plurality of colorless liquid nozzles that eject a colorless liquid,

each of said colorless-liquid nozzles forms a colorless block pattern,

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said plurality of colored-liquid nozzles applies said colored liquid onto a plurality of said colorless block patterns, and

a degree of smearing of said colored liquid at a position at which said colorless block pattern is to be formed is detected based on the detection by said second sensor so that a colorless liquid nozzle that has not ejected said colorless liquid is detected.

- 24. (currently amended): A printing apparatus according to claim 2, wherein said earry transport unit is controlled in accordance with the detection result of said first sensor.
- 25. (previously presented): A printing apparatus according to claim 2, wherein said head is controlled in accordance with the detection result of said first sensor.
- 26. (previously presented): A printing apparatus according to claim 2, wherein said first sensor detects a lateral edge of said medium; and a region onto which ink is to be ejected from said head is determined in accordance with the result of detecting said lateral edge.
- 27. (currently amended): A printing apparatus according to claim 2, wherein said first sensor detects an upper edge of said medium; and said earry\_transport\_unit earries\_transports said medium to a print start position in accordance with the result of detecting said upper edge.

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the result of detecting said lower edge.

28. (previously presented): A printing apparatus according to claim 2, wherein said first sensor detects a lower edge of said medium; and a region onto which ink is to be ejected from said head is determined in accordance with

- 29. (previously presented): A printing apparatus according to claim 2, wherein an ejection test of said head is performed in accordance with the result of detecting said pattern with said second sensor.
- 30. (previously presented): A printing apparatus according to claim 2, wherein said head can eject said ink while moving in a forward pass and in a return pass; and locations at which ink is to be ejected from said head are determined in accordance with the detection result of said second sensor.
- 31. (previously presented): A printing apparatus according to claim 2, wherein the type of said medium is detected from the detection result of said first sensor and the detection result of said second sensor.
- 32. (currently amended): A printing apparatus according to claim 29, wherein said earry transport unit is controlled in accordance with the detection result of said first sensor.

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33. (previously presented): A printing apparatus according to claim 31, wherein said head performs the recording on said medium in accordance with the type of said medium.

34. (previously presented): The printing apparatus according to claim 1, wherein: said first sensor includes a light-emitting section and a light-receiving section; said second sensor includes a light-emitting section and a light-receiving section; and a direction in which said light-emitting section and said light-receiving section of said first sensor are arranged is different from a direction in which said light-emitting section and said light-receiving section of said second sensor are arranged.